

REMARKS

No claims have been amended. Claims 1-74 remain in the application. Further examination and reconsideration of the application, as amended, is hereby requested.

Rejections under 35 USC 102(e)

Claims 1-21, 23 and 25 were rejected under 35 USC 102(e) as being anticipated by Katoh, et al. Applicant respectfully traverses this rejection as Katoh does not disclose, teach, or suggest Applicants invention as claimed. Anticipation requires that each and every element of the claimed invention, *as arranged as in the claim*. See Lindemann Maschinenfabrik GmbH v American Hoist & Derrick Co., 221 USPQ 481, 485 (Fed. Cir. 1984). Applicant's claim 1 is as follows (emphasis added to highlight differences):

1. A display system for displaying an image, comprising:  
*a modulator* configured to produce a light beam that *sequentially* bears a plurality of color image sub-frames, *wherein each color image sub-frame corresponds to one color in a plurality of colors*;  
 display optics configured to display said light beam such that said plurality of color image sub-frames are successively displayed to form said image; and  
*a wobbling device* configured to displace said light beam *between display of each of said color image sub-frames* such that a color image sub-frame corresponding to each color in said plurality of colors is displayed in each of a number of image sub-frame locations.

Katoh in Fig. 76 displays a conventional projection system (see also [0155]) "wherein each color image sub-frame corresponds to one color in a plurality of colors," however, Fig. 76 does not disclose "a wobbling device." Katoh in Fig. 1 discloses "a wobbling device" but does not in Figure 1 disclose "a modulator" that "sequentially" bears a plurality of color image sub-frames but rather, Fig. 1 of Katoh discloses a light source 1 that "in a sub-frame period, the projection plane is irradiated with R, G, and B light rays that have been modulated by the image display panel" ([0156]). Thus, the modulator is not producing a light beam that "sequentially" bears a plurality of color image sub-frames wherein each color image sub-frame corresponds to one color in a plurality of colors" as Applicants

are claiming, but rather Katoh's modulator (the image display panel) "each of the R, G, and B light rays ... irradiates one position on the projection plane in one sub-frame period but irradiates another position on the projection plane in the next sub-frame period" after the modulator is shifted.

5 Katoh's disclosure is different from the structure of Applicant's claim which irradiates the entire panel with one color each sub-frame and then displaces the light beam with the wobbling device between display of each color image sub-frame. This allows each of the colors for a particular pixel to be displayed in each of a number of sub-frame locations. While Katoh performs a similar result, Katoh  
10 irradiates the modulator with multiple colors of light (focused onto respective regions on the modulator with a micro-lens array (see [0162], [0172], and [0169]) which the modulator modulates into a plurality of color beams made from each of the pixel locations, then Katoh shifts the plurality of color beams with the wobbling device such that the displayed image pixels each receive a different color of light  
15 to form a "time-sequential synthesis of the R, G, and B light rays." Although, the result (depending on the amount of pixel shift, e.g. 1 pixel) is similar, Applicants' claimed invention maintains the time sequential color generation of the conventional design and thus does not require the use of expensive dichroic mirrors disposed at relative angles nor the micro-lens array. Accordingly, Katoh  
20 does not disclose, teach, or suggest Applicants' claimed invention. Withdrawal of the rejection under 35 USC 102(e) for claim 1 is respectfully requested.

25 Claims 2-21, 23, and 25 depend at directly or indirectly on claim 1 and are patentable based at least on the patentability of claim 1. In addition, claims 2-21, 23 and 25 are believed to be separately patentable, a couple of which will now be discussed.

For instance, claim 3 includes "wherein said plurality of color image sub-frames is comprises a number of color image sub-frames equal to said number of image sub-frame locations multiplied by a number of colors in said plurality of colors." Katoh discloses the number of sub-frames equal to the number of colors  
30 only (e.g. 3, see Figs. 4-6, 15, or e.g. 2, see Figs. 18-19, or e.g. 4, see Figs 20-21) and not 9 (3 colors times 3 sub-frame locations) as Applicant is claiming. This higher rate of pixel shifting allows for less detection by the human eye (Applicants' disclosure [0067]). Accordingly, Katoh does not disclose, teach, or suggest Applicants claimed invention.

For instance, claim 6 includes the limitation of the vertical and horizontal offset distances of the shift to be "one-half of a pixel". Katoh discloses a full pixel shift of the modulator and thus does not disclose teach or suggest Applicants' claimed invention.

5           Withdrawal of the rejection under 35 USC 102(e) and allowance of claims 1-21, 23, and 25 is respectfully requested.

Rejections under 35 USC 103(a)

10           Claims 22 and 24 were rejected under 35 USC 103(a) as being unpatentable over Katoh et al in view of Kurtz et al. Claims 22 and 23 depend upon claim 1 and are believed patentable based at least on the patentability of claim 1. Withdrawal of the rejection under 35 USC 103(a) and allowance of claims 22 and 23 is respectfully requested.

15           Provisional Double Patenting Rejection

          Claims 1-74 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-70 of  
20    copending Application No. 10/686,110. Applicant is submitting herewith a timely filed terminal disclaimer in compliance with 37 CFR 1.321(c). Withdrawal of this rejection is respectfully requested.

          The prior art made of record but not relied upon by the Examiner has been  
25    reviewed, but is no more pertinent to Applicants' invention than the cited references for the reasons given above.

          Applicants believe their claims as amended are patentable over the art of record, and that the amendments made herein are within the scope of a search  
30    properly conducted under the provisions of MPEP 904.02. Accordingly, claims 1-74 are deemed to be in condition for allowance, and such allowance is respectfully requested.

If for any reason the Examiner finds the Application other than in a condition for allowance, the Examiner is respectfully requested to call Applicants' undersigned representative at the number listed below to discuss the steps necessary for placing the application in condition for allowance.

5 The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 08-2025. Should such fees be associated with an extension of time, Applicants respectfully request that this paper be considered a petition therefore.

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